

Pathways to Advanced Coursework

In 2007, CSAS examined the potential of after-school support for youth leading to increased participation in advanced STEM courses, including Advanced Placement courses and their prerequisites.

The project sought to:

- Synthesize the research regarding the factors that support participation in advanced STEM courses, and what is known about the role of after-school programming in promoting that participation;
- Organize a network of leaders in after-school science who can mobilize their constituencies to take action based on the research that expands strategies and programs encouraging young people to participate in advanced STEM courses;
- Serve as a source of knowledge and an ongoing forum for communication in support of after-school initiatives to promote young people's participation in the science track and advanced STEM courses.

The project resulted in four publications:

- **[A literature review](#)**, providing a detailed summary of the research in support of after-school STEM and its connections to classroom success. This review was conducted by the SERVE Center at UNC Greensboro and prepared by Patricia McClure, Ed.D., and Alberto Rodriguez, Ph.D.
- Three response papers:
 - **[Linking After-School Programs and STEM Learning: A View from another Window](#)** by Lynn D. Dierking, Ph.D., Oregon State University
 - **[Thoughts and Ideas for Action on After School Science Programs and Advanced Science Course Taking](#)** by Yolanda S. George, American Association for the Advancement of Science (AAAS)
 - **[Linking After-School Programs and STEM Learning: Proceed with Caution](#)** by Nicole Yohalem, Forum for Youth Investment and Andrew Shouse, National Research Council

Attendees at the conference recommended action in three areas to support the connection of after-school with success in advanced STEM coursework:

- A national advocacy campaign for STEM in out-of-school time

- Opportunities for one-on-one, adult-youth mentoring relationships that promote engagement in STEM topics
- A longitudinal study of the impacts of after-school programs on the course-taking and career decisions and overall achievement of youth

CSAS incorporated these recommendations into its larger goals for after-school STEM learning and continues to seek support for further expansion of these activities.